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(54) **Process for making sour-and-hot-bread**

(57) A process for making sour-and-hot bread, in which a proper amount of raw onion paste is added to the mixture of strong flour and fresh yeast. The mixture, or dough, is allowed to ferment; and sour-and-hot additives, such as chili and pepper, are added to the fermented dough which is further mixed and fermented before baking. The raw onion paste contains onion pectin which protects the activity of yeast from being inhibited by the sour-and-hot additives, so as to ensure the spongy quality of the bread while the bread gives a sour-and-hot taste.

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## SPECIFICATION

## Process for making sour-and-hot bread

- 5 This invention relates to a process for making a sour-and-hot bread, more particularly to a process for making a bread that contains sour-and-hot additives. It is to be understood that in this description the term "hot" means a stimulating taste of edible substances such as pepper, rather than an elevated temperature.

- According to Daiziro Karise in his Process for Bread (Numata Shoten, Tokyo, 1964), most primitive breads merely involved the baking of ground wheat. The first additive yeast, was added to the wheat flour about 3,000 B.C.; various other additives have since been used to improve the texture and taste of bread. These additives have, unfortunately, been limited to those which do not inhibit the activity of yeast; such additives include oil, fat, improver, dairy products, eggs, vegetables, and fruits etc.. Sour-and-hot additives, however, tend to inhibit the action of the yeast, and have consequently only been applied on the dough after a final fermentating before the dough is baked, or on to the surface of the bread after the dough has been baked to become a completed bread.

- The inventor, engaged in the processing of bread for 55 years, has found that the onion pectin contained in raw onion is able to strengthen the activity of yeast. If an appropriate amount of raw onion paste is used, sour-and-hot additives may then be added to the dough before fermentation without inhibiting the activity of yeast, thus assuring the taste and texture of the bread to be significantly enhanced.

- Accordingly, the object of the present invention is to provide a process whereby sour-and-hot additives can be added to the dough while in the process of mixing without deteriorating the spongy quality of the bread.

- Particularly, the present invention relates to a process for making bread in which strong wheat flour, fresh yeast, salt, sugar, and water in proper weight ratio are mixed to form a uniform primary dough (sometimes called an intermedium dough), into which primary dough a proper amount of raw onion paste is mixed before a first fermentation at room temperature; to which primary dough proper amounts of strong wheat flour, water, oil, fat, seasonings, sour-and-hot additives are added and mixed to form a uniform secondary dough (sometimes called a whole dough) before a second fermentation at a temperature of 27°-28°C; which secondary dough is then cut and shaped before a third fermentation at a temperature of 37°C; which dough is then baked at a temperature of 200°C.

- 55 The special character of this bread is that an adequate amount of raw onion paste is mixed into the primary dough before a first fermentation, and that sour-and-hot additives are then mixed into the secondary dough before a second fermentation. The raw onion paste containing onion pectin usually becomes gelatinous while standing at room temperature, and is able to strengthen the activity of the yeast. The preferred amount of raw onion paste to be added to the primary dough is 5 to 20% by weight based on the total amount of the strong wheat flour contained in the

secondary dough. The sour-and-hot additives may include vinegar, chili powder, pepper powder, chili oil, or mustard, or selected combination thereof. The amount of sour-and-hot additives being added to the secondary dough may be 0.08 to 1.0% by weight of that stated above.

The following example is intended to illustrate the present invention in further detail, but should not be construed to limit the scope of the invention.

## 75 EXAMPLE

- Two pieces of whole raw onion were chopped into pieces and then ground to become a paste. In a stirring tank the onion paste thus obtained was placed, followed by the addition of 4.2 Kg (70 wt. %) of the strong wheat flour which had passed through a 20 mesh-sieve; 0.15 Kg (2.5 wt. %) of fresh yeast, 0.24 Kg (4 wt. %) of castor sugar; 0.06 Kg (1 wt. %) of salt and 2.76 Kg (46 wt. %) of water; and then the mixture was mixed and stirred by a mixer at 50 rpm for 2 minutes and 90 rpm for a further 5 minutes to obtain a primary dough. The primary dough was left standing for 60 minutes to allow a first fermentation at room temperature. Succeedingly, 1.8 Kg (30 wt. %) of strong wheat flour, 0.6 Kg (10 wt. %) of dried turnip, 0.0048 Kg (0.008 wt. %) of capsicum sauce, 0.0048 Kg (0.08 wt. %) of vinegar and 0.0048 Kg (0.08 wt. %) of mustard powder, 0.06 Kg (1 wt. %) of scallion chip, 0.03 Kg (0.5 wt. %) of pepper powder, 0.03 Kg (0.5 wt. %) of flavour essence and 0.6 Kg (10 wt. %) of water were added thereto; and then the mixture was stirred at 50 rpm for 3 minutes and 90 rpm for a further 3 minutes, followed by the addition of 0.24 Kg (4 wt. %) of margarine, and again mixed at 50 rpm for 1 minute and 90 rpm for further 3 minutes to obtain a secondary dough. The secondary dough was then allowed a second fermentation at 28°C for 30 minutes. Thereafter, the resulting dough was divided into slices (each slice being 0.3 Kg and 17 cm in length, 10 cm in width, and 2 cm in height) before being placed into aluminium foil dishes (18 cm in length, 10 cm in width, and 3 cm in height). The dough and dishes were then placed in a water bath for a third fermentation at approximately 37°C for 60 minutes, to allow the dough to expand into a loaf which was 18 cm in length, 10 cm in width, and 5.5 cm in height. Egg paste and cheese were then applied to the loaf of dough and then the loaf was placed in an oven for baking at 200°C for 25 minutes. Finally, a loaf of baked bread which was 18 cm in length, 10 cm in width, and 7 cm in height was obtained. The bread tasted sour-and-hot and was also as spongy as ordinary bread.

## CLAIMS

1. A process for making bread, comprising the steps of: mixing flour, yeast, onion pectin and water in proper proportion to form a primary dough; allowing said primary dough to ferment; adding sour-and-hot additives to said primary dough after fermentation to become a secondary dough; allowing said second dough to ferment; separating said secondary dough after fermentation; allowing said separate secondary dough to ferment; and baking said secondary dough after fermentation.
2. A process according to Claim 1 wherein salt and sugar are mixed into the primary dough.
3. The process according to Claim 1 or Claim 2

wherein said sour-and-hot additives include vinegar, chili powder, pepper powder, chili oil, mustard or a selected combination thereof.

4. A process as claimed in any of the preceding  
5 claims wherein the onion pectin is contained in raw onion paste.

5. A dough mix for a bread containing a primary fermented dough of flour, yeast, water and onion pectin and hot-and-sour additives.

10 6. Process substantially as described in the Example.

7. Bread prepared by processes as claimed in Claims 1 to 4 or claim 6.

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